

LISTING OF THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1-38 (Cancelled)

39. (Previously Presented) A polymeric material comprising an infection resistant biguanide-containing moiety pendant to a polymer chain, wherein the biguanide-containing moiety comprises a plurality of biguanide groups and is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group, wherein said chemical binding is via a substituted urea linkage or a substituted thiourea linkage or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aiminal linkage or a tertiary amine linkage.

40. (Previously Presented) A polymeric material according to claim 39 wherein the infection resistant biguanide-containing moiety is chlorhexidine or polyhexanide.

41. (Previously Presented) A medical device comprising a polymeric material incorporating an infection resistant biguanide-containing moiety pendant to a polymer chain, wherein the biguanide-containing moiety comprises a plurality of biguanide groups and is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group, wherein said chemical binding is via a substituted urea linkage or a substituted thiourea linkage or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aiminal linkage or a tertiary amine linkage.

42. (Previously Presented) A medical device according to claim 41 wherein the medical device is formed from or coated with the polymeric material of claim 39, or the medical device is

first formed from or coated with polymeric material which is thereafter reacted with an infection resistant biguanide-containing moiety such that the biguanide-containing moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group, wherein said chemical binding is via a substituted urea linkage or a substituted thiourea linkage or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage.

43. (Previously Presented) A medical device according to claim 41 formed as a contact lens or intra-ocular lens.

44. (Previously Presented) A method of making a polymeric material according to claim 39 which comprises reacting reactive sites on a polymeric material with some but not all of the secondary amine nitrogen atoms of a biguanide group of an infection resistant biguanide-containing moiety, to form a linkage selected from a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage.

45. (Previously Presented) A method according to claim 44 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

46. (Previously Presented) A method according to claim 44 wherein the reactive sites comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

47. (Previously Presented) A method according to claim 44 wherein the reactive sites comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

48. (Previously Presented) A method of making an infection resistant polymeric material which comprises

(i) modifying a polymer precursor by reacting some but not all of the secondary amine nitrogen atoms of a biguanide group of an infection resistant biguanide-containing moiety that comprises a plurality of biguanide groups, with reactive sites on the polymer precursor wherein the reaction forms a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage; and

(ii) thereafter converting the so modified polymer precursor to an infection resistant polymeric material by a method including a polymerisation step.

49. (Previously Presented) A method according to claim 48 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

50. (Previously Presented) A method according to claim 48 wherein the reactive sites on the polymer precursor comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

51. (Previously Presented) A method according to claim 48 wherein the reactive sites on the polymer precursor comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

52. (Previously Presented) A method according to claim 48 wherein the polymer precursor also contains acrylate, methacrylate, allyl or vinyl groups, and the polymerisation step (ii) is carried out by polymerising the modified polymer precursor through the said groups.

53. (Previously Presented) A method of making a polymeric material according to claim 39 which comprises

(i) modifying a non-polymeric compound by reacting some but not all of the secondary amine nitrogen atoms of a biguanide group of an infection resistant biguanide-containing moiety, with reactive sites on the non-polymeric compound to form a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or amination linkage or a tertiary amine linkage; and

(ii) thereafter chemically binding the so modified compound to a polymeric material.

54. (Previously Presented) A method according to claim 53 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

55. (Previously Presented) A method according to claim 53 wherein the reactive sites on the non-polymeric compound comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

56. (Previously Presented) A method according to claim 53 wherein the reactive sites on the non-polymeric compound comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

57. (Previously Presented) A method according to claim 53 wherein the non-polymeric compound also contains acrylate, methacrylate, allyl or vinyl groups, and the modified compound is chemically bound to a polymeric material through the said groups.

58. (Previously Presented) A method according to claim 44 wherein the resulting polymer containing biguanide groups is subsequently blended with other polymeric material to form an infection resistant polymer for use in forming an article of manufacture.

59. (Previously Presented) A method according to claim 58 wherein the resulting polymer containing biguanide groups is subsequently blended with medically acceptable polymeric material to form an infection resistant medical polymer blend for use in the manufacture of a medial device.
60. (Previously Presented) A method according to claim 59 wherein the resulting polymer containing biguanide groups is subsequently blended with ocularly acceptable lens material to form an infection resistant ocular polymer blend for use in the manufacture of a contact or intra-ocular lens.
61. (Previously Presented) A method according to claim 60 wherein the resulting polymer containing biguanide groups includes acrylate, methacrylate, allyl or vinyl groups and the polymer is subsequently copolymerised with ocularly acceptable lens material to form an infection resistant ocular polymer for use in the manufacture of a contact or intra-ocular lens.
62. (Previously Presented) A method according to claim 44 wherein the resulting polymer containing biguanide groups is subsequently coated on to an article of manufacture to form an infection resistant coating thereon.
63. (Previously Presented) A method according to claim 44 wherein the infection resistant biguanide-containing moiety is chlorhexidine or polyhexanide.
64. (Previously Presented) A method according to claim 63 wherein the resulting polymer contains biguanide groups derived from both chlorhexidine and polyhexanide.

65. (Previously Presented) A method according to claim 54 wherein the reactive sites on the non-polymeric compound comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

66. (Previously Presented) A polymeric material incorporating a polyhexanide moiety pendant to a polymer chain, wherein the polyhexanide moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group of the polyhexanide moiety, and the chemical binding is via N,N-disubstituted amide linkage.

67. (Previously Presented) A medical device according to claim 41 wherein the medical device is formed from or coated with the polymeric material of claim 39 or the medical device is first formed from or coated with polymeric material which is thereafter reacted with an infection resistant biguanide-containing moiety comprising a plurality of biguanide groups such that the biguanide-containing moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group of the infection resistant biguanide-containing moiety, and the chemical binding is via a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage.